

APPENDIX 2

Corps of Engineers Scoping Notice and Responses (Either to the Notice or On the Lake Level Issue)

<u>Item #</u>	<u>Title</u>
8	Corps of Engineers Scoping Notice, dated October 13, 2005 (5 pages)
9	Letter from the Kentucky Department of Fish and Wildlife Resources, dated March 3, 2006 (1 page)
10	Letter from the U.S. Forest Service, Land Between The Lakes National Recreation Area, dated November 17, 2005, documenting concerns over proposal to extend summer pool until July 15 (1 page, minus attachments)
11	Letters from the Corps of Engineers Mississippi Valley Division to the Nashville District and Tennessee Valley Authority, dated November 21, 2005 (4 pages)
12	Letter from the Tennessee Department of Environment and Conservation, dated October 28, 2005 (1 page)
13	Letter from the U.S. Fish and Wildlife Service, Tennessee National Wildlife Refuge Complex, dated November 15, 2005 (1 page, with Item 4 attached)
14	Letter from the U.S. Fish and Wildlife Service, Kentucky Field Office, dated November 15, 2005 (9 pages)
15	Letter from the Kentucky Ornithological Society, dated November 11, 2005 (1 page)
16	Letter to Congressman Whitfield from the Kentucky's Western Waterland, dated March 14, 2005 (2 pages)
17	Email from Northwest Tennessee Tourism, dated October 31, 2005 (1 page)
18	Letter from a Kentucky Realtor, dated November 10, 2005 (2 pages)
19	Letter from a Lake Barkley Marina Owner, dated November 15, 2005 (2 pages)
20	Letter from a Lake Barkley Boater and Property Owner, undated (1 page)

APPENDIX 2

Corps of Engineers Scoping Notice and Responses (Either to the Notice or On the Lake Level Issue)

<u>Item #</u>	<u>Title</u>
21	Letter from a Lake Barkley Boater, undated (1 page)
22	Email forwarded from Senator McConnell, dated August 22, 2005 (1 page)
23	Email forwarded from Senator McConnell, dated August 25, 2005 (1 page)
24	Email forwarded from Senator McConnell, dated August 25, 2005 (1 page)
25	Letter from Eddy Creek Marina to Secretary Woodley, dated August 11, 2005 (1 page)
26	Letter to Corps of Engineers from Boater, dated August 22, 2005 (1 page)
27	Letter from the Letter from the Kentucky Ornithological Society to Congressman Whitfield, dated August 17, 2005 (3 pages)
28	Memorandum summarizing three responses received by phone (1 page)
29	Memorandum Summarizing Responses to the Corps of Engineer Scoping Notice, dated December 19, 2005 (4 pages)



DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1070
NASHVILLE, TENNESSEE 37202-1070

October 13, 2005

IN REPLY REFER TO

Project Planning Branch

To All Interested Parties:

The U.S. Army Corps of Engineers, Nashville District (Corps) is preparing an Environmental Assessment (EA) concerning a proposed experimental pool level change at Lake Barkley. Because a pool level change would affect the pool level of Kentucky Reservoir, the Tennessee Valley Authority (TVA) is cooperating in the preparation of this EA. The Corps was requested to consider a change in order to improve recreational boating conditions on Lake Barkley by extending the summer pool (elevation 359 feet) from the current drawdown date of July 1 until July 15.

The enclosure shows the current guide curve for Lake Barkley and actual pool levels for 2005. Under the current guide curve, implemented in 1980, summer pool is maintained from May 1 to July 1. At that time, the lake is gradually drawn down to winter pool (elevation 354 feet) by December 1. Winter pool is maintained until April 1. The guide curve is an operational goal under normal conditions and actual pool levels are allowed to fluctuate within a foot above or below the guide. During extreme events such as floods, pools may be off the guide curve until the event ends and pools are returned to the guide as soon as practical. During the July 5-10 period this year, pool levels were held above the guide curve in order to allow repair work to be conducted at Lock and Dam #52 (Ohio River) and upon completion of the repairs, the guide curve has been maintained. Based on observed data during the summer pool drawdown period, pool levels are almost always on the high side of the guide curve.

Lake Barkley is a Corps of Engineers lake on the Cumberland River in western Kentucky and middle Tennessee. The lake is formed by a dam at Cumberland River Mile 30.6. Kentucky Reservoir is a TVA impoundment located in western Kentucky and Tennessee and is formed by a dam on the Tennessee River mile 22.4. Because both water bodies are connected by the unregulated Barkley Canal, they are operated in tandem and any changes to operation must be approved by both agencies. Operation of both lakes is controlled by the Corps of Engineers

-2-

when flooding or low water navigation concerns are occurring on the lower Ohio and Mississippi Rivers.

In 2004, TVA completed a comprehensive review of operations on the TVA reservoir system, *Final Programmatic Environmental Impact Statement, Tennessee Valley Authority Reservoir Operations Study* (February 2004) ("ROS EIS"). The Corps was a cooperating agency in the ROS EIS. This current EA would tier from the ROS EIS in order to utilize previous analyses and information. It is noted that summer pool extensions considered in the ROS EIS were longer in duration than the current proposal. As an outcome of the ROS EIS, TVA decided to not change summer pool levels in Kentucky Reservoir. TVA also committed to developing better benchmark data about shorebird and waterfowl populations, wetlands vegetation, and the sport fishery on Kentucky Reservoir. These benchmark data are important in evaluating affects of any pool level changes which have been periodically suggested over the years. These studies began in 2005 and, depending on the particular study, will be performed over a 5 to 13 year period. The Corps is performing similar benchmark data collection on Lake Barkley.

As part of the scoping process for this EA, the Corps of Engineers hosted a meeting on May 3, 2005, with several resource agencies with jurisdiction over the area. The concerns voiced at the meeting and in follow-up letters from each agency will be considered in the EA. At the conclusion of the EA, the Corps and TVA will make a determination that either a Finding of No Significant Impact (FONSI) is appropriate for the proposed pool extension or that a comprehensive Environmental Impact Statement (EIS) would be necessary. If we determine an EIS is needed, we would reevaluate the benefits, impacts and costs associated with further studies before proceeding with the experiment.

Anticipated areas of concern over any pool extensions include the following:

- Impacts to shoreline vegetation (button bush) and long-term loss of fish and wildlife habitat as vegetation declines;

-3-

- Impacts to habitat used by migrating shorebirds and waterfowl that utilize mudflats under the existing operation;
- Increased shoreline erosion; Capital investments to maintain current operations at the Tennessee and Cross Creeks National Wildlife Refuges;
- Increased likelihood of fish kills below Kentucky and Barkley Dams due to increased spilling operations during the period pools are raised;
- Loss of operational flexibility during periods when the lakes are operated to reduce flooding or improve river navigation in the lower Ohio and Mississippi Rivers and the Tennessee and Cumberland River systems;
- Decreased tourism revenue associated with fishing and wildlife observation;
- Interference with benchmark data collection identified by the ROS EIS;
- Endangered Species Act compliance issues.

Anticipated benefits of the proposed pool extension include:

- Improved conditions for recreational boating;
- Reduced damage to boats;
- Possible increased revenue for marinas during increased pools and associated economic benefits from additional boaters.

In accordance with the National Environmental Policy Act (NEPA) and applicable implementing regulations, an EA will be prepared. By way of this letter, we are soliciting public and agency comments concerning environmental and social issues that should be addressed during the NEPA process. We encourage comments not only about the immediate project area, but also of plans or proposals for any other development that may impact or influence project resources. Recommendations concerning pool extension alternatives to be considered should be provided. Anticipated alternatives to be considered would include No Action (current operation), summer pool extension until July 15th (with various return periods to the current guide curve), and restoration of the original guide curve used prior to 1980 (summer pool drawdown date of June 15). The latter has been recommended by some resource agencies due to environmental impacts of the original guide curve change.

- 4 -

This letter also serves to initiate the public involvement requirements of Section 106 of the National Historic Preservation Act of 1966, as amended. Section 106, implemented by regulations at 36CFR800, requires the Corps of Engineers to consider the effects of its undertakings on historic properties. Appropriate archeological investigations will be conducted within those areas affected by the proposed activities. Investigations will be conducted in consultation with the Kentucky and Tennessee State Historic Preservation Officer, the Advisory Council on Historic Preservation, and relevant Native American tribes as appropriate.

Please contact Tim Higgs, Environmental Engineer, at the above address or call (615)736-7863 with any questions or comments concerning environmental, social, and cultural resource issues. Please respond no later than November 18, 2005, to ensure evaluation and inclusion in the EA. Your participation is greatly appreciated.

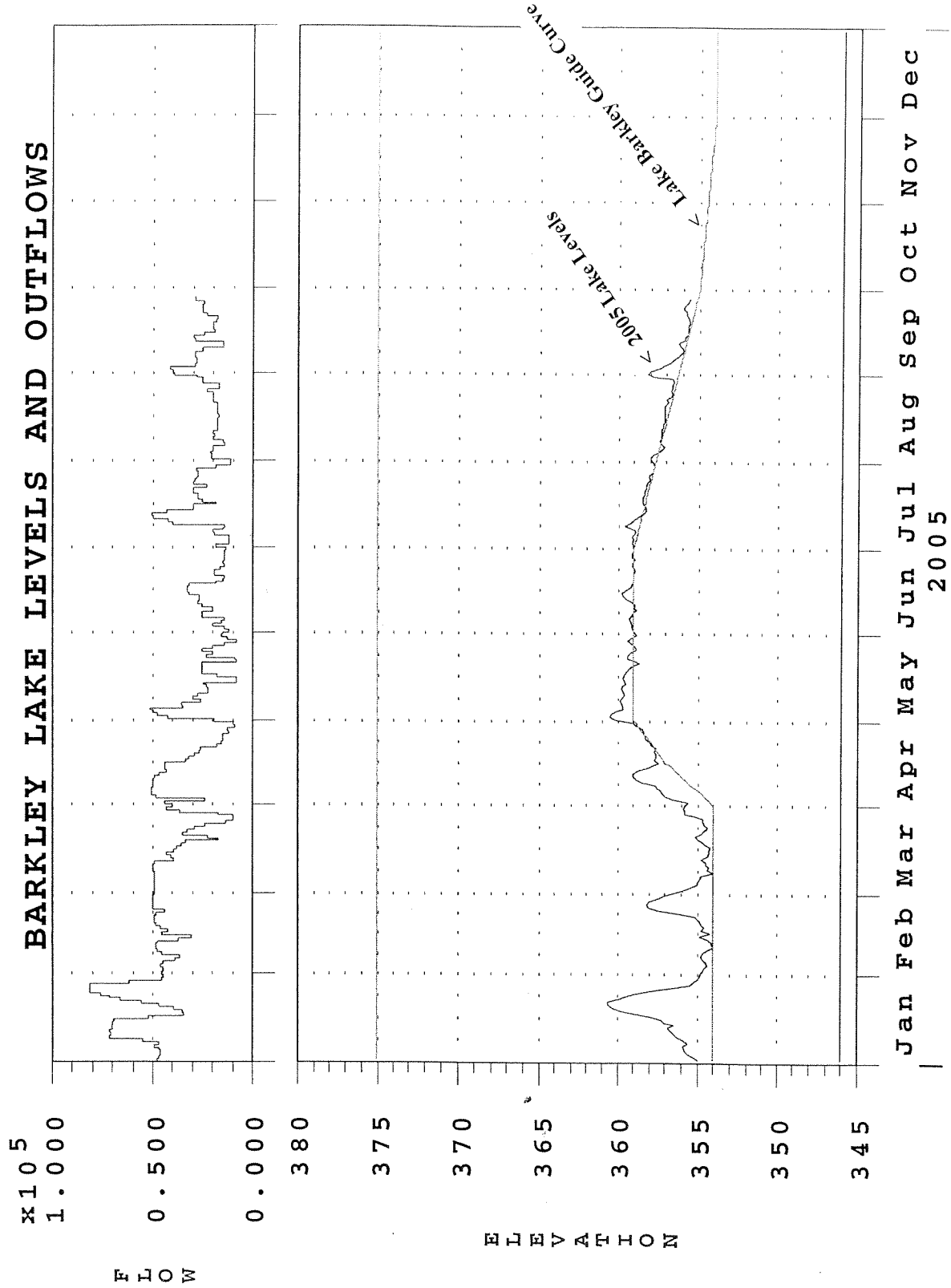
Sincerely,

A handwritten signature in black ink, reading "Steven J. Roemhildt". The signature is written in a cursive style with a large, stylized "S" and "R".

Steven J. Roemhildt, P.E.
Lieutenant Colonel
Corps of Engineers
District Engineer

Enclosure

FIGURE 1



Enclosure



KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
COMMERCE CABINET

Ernie Fletcher
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

George Ward
Secretary

Dr. Jonathan W. Gassett
Commissioner

March 3, 2006

Steven J. Roemhildt, Lieutenant Colonel
U.S. Army Corps of Engineers, Nashville District
PO Box 1070
Nashville, TN 37202-1070

RE: Proposed Pool Changes
Barkley and Kentucky lakes

Dear Lt. Colonel Roemhildt:

Your October 13, 2005 letter requested comments prior to the preparation of an Environmental Assessment (EA) regarding proposed experimental pool level changes on Barkley Lake. The Corps was requested to consider a change to improve recreational boating conditions on Barkley Lake. Because Barkley and Kentucky lakes are connected, these additional analyses must consider all the potential effects of extending the summer pool level on both water bodies. Tennessee Valley Authority has agreed to cooperate in the preparation of this EA.

Several guide curve changes have been proposed for consideration. There are diverse interests associated with proposed pool changes including recreational boating interests, fish and wildlife concerns, and economic (tourism) considerations. We recommend that the Corps fully evaluate the proposed changes as part of their NEPA process. We request the opportunity to review and comment on the evaluation as it is developed.

Thank you for your time and consideration. If you have further information or require additional information, please contact me at 502-564-7109 ext. 420.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Gassett".

Dr. Jon Gassett
Interim Director

JWG/BTK/MDH/ag

cc: Lee Andrews, USFWS
Lee Barclay, USFWS
John Taylor, USFWS
Robert Wheat, Tennessee National Wildlife Refuge
Tim Higgs, USACE-Nashville District





→FEC

File Code: 1500

Date: November 17, 2005

Appendix 2 - Item 10

Tim Higgs
Environmental Engineer
Corps of Engineers
P O Box 1070
Nashville, TN 37202-1070

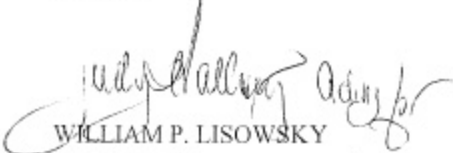
Dear Tim:

The US Forest Service Land Between The Lakes National Recreation Area (LBL) thanks the US Army Corps of Engineers (USACE) for the opportunity to respond to the October 13, 2005, letter regarding a proposed experimental pool level change at Lake Barkley. At this time, LBL cannot provide any recommendations concerning the pool extension alternatives. Both the recreation and natural resource aspects of LBL could potentially be affected by altered lake levels.

Recreation at LBL would likely receive several benefits from an extension of the summer pool level. Lake front campsites would be more attractive to campers and boat ramps would be accessible longer. There would also be opportunities for water-related special events later in the season. LBL could experience an overall increase in visitation which would positively affect regional tourism. As for natural resources, LBL doesn't have much in the way of shoreline habitat and/or wildlife data but does recognize some concerns. Lake level alteration could affect shoreline vegetation which might indirectly affect certain fish populations. The amount of mudflat exposure and timing of shorebird migration might also be affected by lake level changes. Birds of prey, such as the bald eagle and osprey, could also be of concern. In looking through LBL records, a few documents should be of interest to the USACE. These documents have been attached to this letter.

Thanks again for the opportunity for LBL to participate in this issue. If LBL or the Forest Service can provide any additional information or assistance, please feel free to contact Judy Hallisey at (270) 924-2204.

Sincerely,


WILLIAM P. LISOWSKY
Area Supervisor

cc: Steven Roemhildt





DEPARTMENT OF THE ARMY

MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS

P.O. BOX 80

VICKSBURG, MISSISSIPPI 39181-0080

<http://www.mvd.usace.army.mil/>

REPLY TO
ATTENTION OF:

November 21, 2005

Executive Office

Lieutenant Colonel Steven J. Roemhildt, P.E.
District Engineer
U.S. Army Engineer District, Nashville
P.O. Box 1070
Nashville, Tennessee 37202-1070

Steve
Dear Colonel Roemhildt:

Reference your letter dated October 13, 2005, which requests our comments on proposed changes in the operation at Barkley Lake identified in your October 13, 2005, Scoping Notice.

As you stated in your letter, in 2004 TVA completed a comprehensive review of the operations on the TVA reservoir system with MVD and LRD being cooperating agencies. During that review, MVD's primary concerns regarding the alternatives being evaluated were the potential impact to the Lower Mississippi Valley from operational changes to Kentucky/Barkley Lakes. As a result of these concerns, TVA, LRD, and MVD Water Control personnel performed a detailed investigation to determine potential flood control and navigational impacts to the Lower Mississippi Valley. Through this coordinated analysis, it was determined that the selected alternative would not have any significant impact to the flood control capability of Kentucky/Barkley Lakes and, therefore, would not adversely impact the areas downstream of those lakes. Those analyses were based on no changes in the operation of Barkley and Kentucky Lakes. The extension of the summer pool proposed for consideration in this EA, even as minor as it seems, could possibly have some impacts to the lakes' operations which may adversely affect areas downstream. MVD's position remains that any change that would reduce flood control capability at Kentucky/Barkley Lakes or impact mainstem river navigation must be evaluated within the context of the entire lower Ohio/Mississippi River system. Our staff at MVD will work closely with your and LRD's staff in analyzing impacts of all potential alternatives on the downstream river system.

-2-

The MVD point of contact on this review is Mr. Donnie Cool of the Watershed Management Team. He may be reached at (601) 634-5711 or Don.F.Cool@mvd02.usace.army.mil.

Sincerely,

A handwritten signature in cursive script, reading "Robert Crear". The signature is written in dark ink and is positioned above the printed name and title.

Robert Crear
Brigadier General, U.S. Army
Division Engineer

Copy Furnished:

Ms. Deborah Lee
ATTN: CELRD-DD-W
Great Lakes and Ohio River Division

CP



Appendix 2 - Item 11 (Two Letters)

DEPARTMENT OF THE ARMY
MISSISSIPPI RIVER COMMISSION, CORPS OF ENGINEERS
VICKSBURG, MISSISSIPPI 39181-0080

November 21, 2005

ADDRESS REPLY TO:

PRESIDENT, MISSISSIPPI RIVER COMMISSION
CORPS OF ENGINEERS
P. O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

Executive Office

Mr. Glenn L. McCullough, Jr., Chairman
Tennessee Valley Authority
400 West Summit Hill Drive, ET 12A
Knoxville, Tennessee 37902

Dear Mr. McCullough:

As you are aware, the U.S. Army Corps of Engineers, Nashville District, is preparing an Environmental Assessment (EA) concerning a proposed experimental pool level change at Lake Barkley. Because a pool level change would affect the pool level of Kentucky Reservoir, your agency is cooperating in the preparation of this EA. The Mississippi River Commission appreciates the opportunity to review the various proposals for changes in operating levels on Barkley and Kentucky Lakes.

The technical staff of the Mississippi River Commission at the Mississippi Valley Division has reviewed the proposed change and will provide comments to the Nashville District. I want to take this opportunity to convey our continued interest in any considerations for changes in the operation of the Kentucky/Barkley Lakes system which may impact either flood control, navigation, or the environment of the Mississippi River.

In 2004, your agency completed a comprehensive review of the operations on the TVA reservoir system with the Mississippi Valley Division (MVD) and the Great Lakes and Ohio River Division (LRD) being cooperating agencies. During that review, MVD's primary concerns regarding the alternatives being evaluated were the potential impact to the Lower Mississippi Valley from operational changes to Kentucky/Barkley Lakes. As a result of these concerns, a detailed investigation was conducted to determine potential flood control and navigational impacts to the Lower Mississippi Valley. Through this coordinated analysis, it was determined that the selected alternative would not have any significant impact to the flood control capability of Kentucky/Barkley Lakes and, therefore, would not adversely impact the areas downstream of those lakes. Those analyses were based on no

-2-

changes in the operation of Barkley and Kentucky Lakes. The extension of the summer pool proposed for consideration in the EA being developed by the Nashville District, even as minor as it seems, could possibly have some impacts to the lakes operations which may adversely affect areas downstream. The Commission's position remains that any change that would reduce flood control capability at Kentucky/Barkley Lakes or impact mainstem river navigation must be evaluated within the context of the entire lower Ohio/Mississippi River system. Our staff at MVD will work closely with the Corps' Great Lakes and Ohio River Division and Nashville District staffs in analyzing impacts of all potential alternatives on the downstream river system.

Our agencies have maintained an outstanding relationship during previous flood and low water periods, and we look forward to continued coordination with your agency relative to the successful regulation of the Corps/TVA reservoir system for the benefit of the nation.

Sincerely,



Robert Crear
Brigadier General, U.S. Army
President Designee, Mississippi
River Commission

Copy Furnished:

✓ LTC Steven J. Roemhildt
District Engineer
U.S. Army Engineer District,
Nashville
P.O. Box 1070
Nashville, Tennessee 37202-1070

Ms. Deborah Lee
ATTN: CELRD-DD-W
Great Lakes and Ohio River Division
P.O. Box 1159
Cincinnati, Ohio 45201-1159



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

JAMES H. FYKE
COMMISSIONER

PHIL BREDESEN
GOVERNOR

October 28, 2005

Mr. Tim Higgs
Department of the Army
Nashville District, Corps of Engineers
P.O. Box 1070
Nashville, TN 37202-1070

RE: Proposed changes to Lake Barkley pool levels

Dear Mr. Higgs,

The Department of Environment and Conservation received information on the above-referenced project dated October 13, 2005 (received October 24, 2005). The Department will review this material and comment as appropriate.

If you have any questions, please contact our Environmental Policy Office at (615) 532-0929.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robin Cathcart".

Robin Cathcart
Environmental Policy Office

cc: File 05-108



Appendix 2 - Item 13
United States Department of the Interior



U. S. Fish and Wildlife Service
Tennessee National Wildlife Refuge Complex
3006 Dinkins Lane
Paris, Tennessee 38242
(731) 642-2091

November 15, 2005

18 NOV 2005

Lieutenant Colonel Steven J. Roemhildt
Nashville District
U.S. Army Corps of Engineers
P.O. Box 1070
Nashville, TN 37202-1070

Dear Sir:

I appreciate the invitation to comment on the proposed experimental pool level changes at Lake Barkley and Kentucky Lake. Our position on any change that would further delay the fall drawdown of these two reservoirs has not changed from the previous correspondence prompted by the May 3, 2005 meeting. You can find attached a letter dated May 9, 2005 that is addressed to your predecessor, Lieutenant Colonel Byron G. Jorns. This letter outlines the concerns and issues relating to the potential impacts to fish and wildlife resource and the management of habitats on Cross Creeks and Tennessee National Wildlife Refuges that I feel should be addressed during the NEPA process. If you need further clarification please do not hesitate to contact me at (731) 642-2091. Again, thank you for the opportunity to comment on this important issue.

Sincerely,



John T. Taylor
Refuge Manager

cc: Tim Higgs, Corps of Engineers, Nashville



United States Department of the Interior

FISH AND WILDLIFE SERVICE

3761 Georgetown Road
Frankfort, Kentucky 40601

November 15, 2005

Mr. Steven J. Roemhildt, P.E.
Nashville District, Corps
P.O. Box 1070
Nashville, Tennessee 37202-1070

Subject: FWS# 06-0303; Lake Barkley pool level change; Cumberland River in
KY and TN.

Dear Mr. Higgs:

Your letter of October 13, 2005 requested our comments in order to help you in the preparation of an Environmental Assessment (EA) regarding a proposed experimental pool level change at Lake Barkley. This change is intended to improve recreational boating conditions on Lake Barkley by extending the summer pool (elevation 359 feet) from the current drawdown date of July 1 until July 15. Since Lake Barkley and Kentucky Reservoir are connected, any changes in Lake Barkley will affect pool levels in Kentucky Reservoir. The Tennessee Valley Authority completed a River Operations System Environmental Impact Statement in February 2004, and decided to not change summer pool levels in Kentucky Reservoir. In addition, TVA, in cooperation with the Fish and Wildlife Service and the Tennessee Wildlife Resources Agency, has committed to developing better benchmark data about shorebird and waterfowl populations, wetlands vegetation, and the sport fishery on Kentucky Reservoir beginning in 2005 and that this data will be collected over a period of 5 to 13 years. As indicated in your letter the Corps is performing similar benchmark data collection on Lake Barkley. We have included herein Service comments and concerns regarding the proposed experimental pool level changes and its impact on fish and wildlife resources, especially waterfowl, shorebirds, and federally listed endangered and/or threatened species.

We would like to have the Corps clarify what 'experimental' means regarding this proposed pool change. In the October 13th letter this is mentioned but not explained. In a meeting with the Corps on May 3rd, it was presented that the extension would be initiated this year under a three-year trial period. It would be conducted under a categorical exclusion from NEPA, and that an EA would have to be completed prior to permanent implementation. We do not feel this is appropriate for several reasons. First, the severity of the impacts and concerns presented during the May 3rd meeting by several resource agencies made evident this change should not be considered under categorical exclusion. Also, we feel that an EIS is warranted due to cumulative impacts associated with the past changes that extended summer pool until July 1 in 1980 and the "unofficial" extension to

Appendix 2 - Item 14

July 5, as well as the potential for extensions that might occur in the future. We have great concern that a trial extension will be initiated without having adequate baseline data on the existing habitats and wildlife populations. During TVA's Reservoir Operations Study, TVA identified that there was a lack of data to fully assess the impacts of changes to the operating schedule of Kentucky Reservoir. To gather this information, TVA initiated a five-year study of shorebirds and mudflat vegetation this past summer. If the proposed extension is implemented this year, TVA's study will be compromised. We strongly recommend that any trial change to the operation schedules of the reservoirs be at least delayed until after this research is complete.

In addition we believe the special interest groups in favor of the extension will not be satisfied with the proposed extension and in the future may push for an even later extension of the summer pool. This concern should be addressed in the environmental assessment. Further extensions would adversely impact refuge resources and facilities.

Impacts on Cross Creeks and Tennessee National Wildlife Refuges

We believe a drawdown schedule that extends keeping the pool at 'summer pool' to July 15th will have negative impacts on the management of wildlife habitats on both Cross Creeks and Tennessee National Wildlife Refuges (NWRs), even though the proposed extension is only ten days past the current 'unofficial' drawdown date of July 5. The two National Wildlife Refuges and thousands of migratory birds have already been significantly impacted by the drawdown schedule change from June 15 to July 5 that occurred in 1980. Any further extension will just exacerbate the problems caused by the 1980 change.

The later in the growing season the reservoirs are drawn down, the later mudflats are exposed, and the less opportunity native plants have to germinate and mature. The adverse impacts associated with the 1980 change were probably greater than anticipated. In a 1981 Tennessee National Wildlife Refuge annual report the Refuge Manager spoke to the impacts of the July 1 extension and stated, "This (the extended summer pool) is adversely affecting about 1,500 acres of (Tennessee Refuge) land".

For example, a substantial decline in refuge widgeon populations in the winter of 1980 was noted in a 1980 refuge report. The widgeon, unlike most puddle ducks, prefers the leafy part of plants as opposed to seeds. The annual plants that germinate on the reservoir mudflats provide valuable forage for this species. A look at the peak populations of widgeon on Tennessee NWR since 1964 reveals that a decline started soon after the 1980 summer pool extension was implemented (see the attached graph). The average annual peak for the widgeon prior to the summer of 1980 was over 33,000 as compared to 8,600 after the Kentucky Lake summer pool was extended.

Delaying the fall drawdown on Barkley and Kentucky Reservoirs past the current schedule could potentially have the following impacts to wildlife, habitat resources, and facilities that occur on Cross Creeks and Tennessee NWRs: 1) Cause further loss of fall mudflat habitat for shorebirds and early migrating waterfowl. 2) Result in a loss and/or

Appendix 2 - Item 14

degradation of mudflats for wintering waterfowl, eagles, gulls, terns, and wading birds. 3) Reduce the water and habitat management capabilities within managed refuge impoundments. 4) Increase the risk of flooding within the managed impoundments. 5) Result in a loss of herbaceous, scrub/shrub, and forested wetlands. 6) Accelerate erosion of the reservoir shoreline and associated damage to refuge archeological sites, boat ramps, roads, dikes, and other facilities. Greater details of these impacts are provided below:

Loss of fall mudflat habitat for shorebirds and early migrating waterfowl

During fall migration thousands of shorebirds utilize the mudflats on Barkley and Kentucky Reservoirs. The average peak fall migration of shorebirds in Tennessee occurs around mid-August. Typically, shorebird habitat is extremely limited during the fall due to dry conditions and dense vegetation that has developed through the summer adjacent to the reservoirs and other impounded waters. For this reason, the fall drawdown of Barkley and Kentucky Reservoirs is extremely important. Since most shorebird species prefer habitats that are open and away from dense cover, the water level needs to be low enough to expose flats that are not covered by woody vegetation. On Barkley and Kentucky Reservoirs the elevation of summer pool is 359 MSL and woody vegetation typically extends down to elevation 357.5 MSL. For adequate mudflat habitat to be available, the pool elevation needs to be around 356.5 MSL. Under the existing operations for these reservoirs this level is scheduled to be reached during late August. Typically, this is not the case even during years with normal rainfall since the "noise" around the guide curve is more often above the guide curve than at or below the scheduled pool level. During most years adequate shorebird habitat is not available until early September. This illustrates that a significant loss of shorebird habitat had already occurred when the 1980 extension was implemented. Any further habitat loss is unacceptable if we are to maintain shorebird populations in this region.

This includes the federally listed piping plover of which at least a portion of the Great Lakes population, which is thought to be less than 50 pairs, likely migrates through the Tennessee Valley area. This breeding population is listed on its breeding grounds as federally endangered, but piping plovers in general away from breeding grounds are listed as federally threatened. Any reduction in available habitat by holding higher pool levels into the mid-summer months when early southbound migrating birds are most likely moving through may negatively impact these birds. This is serious enough for any piping plovers moving through this river valley, but may be real important if the small number of piping plovers are largely made up of Great Lakes birds and such changes affect the survival of even one bird given the status of the Great Lakes population.

Blue-winged teal are the first migrating waterfowl to arrive in Tennessee. The Tennessee Valley is along one of two major migration corridors for this species. This migration route extends from Manitoba to Florida. They first arrive in Tennessee during early August with the peak period of migration occurring around mid-September. Like shorebirds, blue-winged teal heavily utilize the mudflats on the reservoirs for feeding and loafing. They commonly feed on the seeds of sedges, grasses, and smartweed that were

Appendix 2 - Item 14

deposited on the flats in previous years, as well as insects and mollusks that may be present. During the migration period it is important for extensive mudflats with an abundant source of food to be present on Barkley and Kentucky Reservoirs. The existing management of these reservoirs provides good habitat at the appropriate time of the year for blue-winged teal to utilize during migration. The drawdown also coincides with a special early duck season that provides recreational opportunities to a large number of hunters, many of which hunt on the mudflats of the reservoirs.

Traditionally, migrant Canada geese from the Southern James Bay Population (SJB) would winter in large numbers within the Tennessee Valley. The December populations of SJB geese in Tennessee prior to 1990 averaged over 40,000. Since that point the portion of the population that migrates into the Tennessee Valley has sharply declined to a present December average of less than 10,000 SJB geese in Tennessee. Even though the overall population level of the SJB has stabilized, the decline in the numbers that migrate to the Tennessee Valley continues. Migrant geese first arrive on Tennessee NWR around September 20 and generally will remain within the vicinity of the refuge until late winter. Typically, the best quality habitat available in September are the flats associated with the reservoirs. Geese browse the new growth of annual grasses and sedges that occur on these flats. The existing fall drawdown schedule for Barkley and Kentucky Reservoirs provides mudflat habitat for these early migrants.

Delays in the fall drawdown will eliminate or significantly reduce the quantity and quality of mudflat habitat available on these reservoirs to shorebirds and early migrating waterfowl. The quality of the mudflat habitat for waterfowl will be degraded since the delayed exposure of the flats will result in reduced germination and maturing of annual plants. These impacts identified above will result in population declines of early migrant bird species such as shorebirds, blue-winged teal, and SJB geese.

Loss and/or degradation of mudflats for wintering waterfowl, eagles, gulls, terns, and wading birds

Approximately 300,000 ducks and geese, 100 bald eagles, and tens-of-thousands of other wetland dependant migratory birds typically occur on Tennessee and Cross Creeks NWRs during the peak wintering period. Under the current reservoir operation policy the winter pool elevation of Barkley and Kentucky Reservoirs is 354 MSL. This level fluctuates throughout the winter depending upon several factors, but is largely influenced by rainfall. During most winters extensive mudflats with important food resources are periodically available for migratory birds.

Large numbers of waterfowl concentrate on the flats of the refuges to rest and feed. Canada geese and wigeon browse on the annual plants that germinate each year during the late summer and fall drawdown period. When the lake levels are low a high percentage of the populations of these two species will congregate on the flats. Mudflats are the preferred habitat for green-winged teal within this area. When large expanses of flats are present the majority of teal on the refuge will occur within this habitat. Green-winged teal forage on the seeds of annual plants that have been deposited on the flats in

Appendix 2 - Item 14

previous years, as well as insects and mollusks. It has been determined from the data collected during waterfowl surveys during the last nine years that the reservoir habitats provide a high percentage of the waterfowl use that occurs on Tennessee NWR.

The potential impacts from extended summer pools on mudflat vegetation and waterfowl use became apparent this year. The heavy rains associated with tropical storms passing through the Tennessee Valley last year did not allow the reservoir to drop much below 357 MSL for any extended period of time during the late summer and early fall. As a result the annual vegetation struggled to germinate on the flats and in many cases was killed by high water if germination had occurred. The end result was little to no waterfowl foods available on the flats. A comparison of the duck use that occurred on reservoir habitats versus the intensively managed dewatering area on the Duck River Unit depicted a major drop in waterfowl use of reservoir habitats. This year 22% of the duck use on the Duck River Unit occurred on the reservoir as compared to an average of 42% for the previous six years.

Bald eagles are regularly observed on the flats of Tennessee NWR scavenging the carcasses of fish and waterfowl. As the drawdown occurs fish occasionally get trapped in shallow waters and become an easy source of food for eagles. Gulls, terns, and wading birds utilize the flats of the reservoirs in large numbers throughout the drawdown and winter pool periods. The flats are primarily used for resting areas and are typically adjacent to shallow water feeding sites. The endangered least tern migrates through the area and utilizes flats for resting. Extending the pool to July 15th will result in some degree of adverse change in mudflat habitat quantity and/or quality for wintering waterfowl and other migratory birds. It can be expected to have a negative impact on the amount and quality of forage produced by annual plants that germinate on the flats.

Reduced water and habitat management capabilities within managed impoundments

There are over 7,000 acres of managed waters, within dozens of impoundments, on Tennessee and Cross Creeks NWRs. Management emphasis in these impoundments is primarily focused on waterfowl, but many other wildlife species benefit from this valuable wetland habitat. During early spring, prior to the reservoirs being raised to summer pool, the water level in most of these impoundments is lowered to produce foods for waterfowl. A variety of habitat types are provided in these impoundments, including agricultural crops, moist soil vegetation (native plants that germinate and grow on sites that retain good soil moistures), and forested wetlands. Many of the impoundments are situated at a low elevation and do not have mechanical pumping capabilities. On these impoundments, the water has to be removed when the reservoir is at winter pool. Even some of the impoundments with pumping capabilities are managed by gravity drawdown to reduce management cost. Without pumping capabilities, summer rainfall will gradually refill the impoundments, limiting the amount of habitat that can be planted to agriculture or managed for moist-soil vegetation. Most of the impoundments on Tennessee NWR are located within the Duck River Bottoms dewatering area. We currently have pumping capabilities at that location. The impoundments on the Busseltown and Big Sandy units of Tennessee NWR and all of the impoundments on

Appendix 2 - Item 14

Cross Creeks NWR do not have established pumping capabilities. Portable pumps can be used on some of the smallest impoundments, but efficiency and available personnel limit the amount of pumping that can be accomplished. The current management strategy on many of these impoundments is to remove the water as the lake levels start dropping on July 5. For moist soil or agriculture production, this drawdown schedule is on the borderline of being too late. Any further extension of summer pool would eliminate management of these impoundments without the use of pumps.

Extending the summer pool will essentially eliminate the management of hundreds of acres of seasonally flooded wetlands on Cross Creeks and Tennessee NWRs. Pumping will be necessary to meet the habitat objectives established for these refuges. Funding and staff are not available to convert our water management from gravity flow methods to pumping. If the proposed change occurs, mitigation for these lost habitats should be provided in the form of pumping capabilities on these refuges as part of the Corps' project costs.

Increased risk of flooding within managed impoundment

All of the managed impoundments on the refuges are subject to flooding. Spring floods are common and occur in most years. Management strategies on the refuges have been adapted to this situation and good quality waterfowl habitat is produced in spite of spring flooding. Early summer floods (June) are less common, but occasionally do have impacts on the quality and quantity of waterfowl habitats, especially agricultural crops. Late summer and fall floods are very rare, but when they occur the impacts on the habitat will approach a total loss for the year. Winter floods are uncommon and usually only occur after January. The impacts to waterfowl foods have been limited in the past, but a winter flood could cause most of the habitats to be unavailable to waterfowl due to the water depth. Floods in any season will cause significant damage to the refuge infrastructure (levees, water control structures, roads, etc.).

An assessment of the alternatives needs to consider the possibility of increasing the risk and potential impacts of flooding on the refuges above that of the current operations. When a preferred alternative is selected, a detailed analysis of the flood risk for each refuge and refuge unit should be conducted so that an adequate assessment of the impacts can be made.

Loss of herbaceous, scrub/shrub, and forested wetlands

The herbaceous, scrub/shrub, and forested wetlands that ring Kentucky and Barkley Reservoirs provide important habitats for many species of fish, mammals, amphibians, reptiles, birds, and insects. These wetlands vary from narrow bands along the shoreline to extensive forests within the creek bottoms. From May to July, several thousands of acres of buttonbush and willow thickets are shallowly flooded while the reservoirs are at summer pool. Outside the summer pool period, primarily during the winter and spring, these herbaceous and woody wetlands will periodically flood during heavy rainfall events.

Appendix 2 - Item 14

When the wetlands along the lakeshores are flooded, waterfowl will use these habitats extensively. Wood ducks require dense cover as brood habitat. The willow-buttonbush thickets provide an excellent overhead cover, and at the same time are open enough at the water surface to allow the wood duck broods to move easily and feed on the numerous invertebrates that are present. During high water events in the winter and early spring, mallards, black ducks, and wood ducks will move into these newly flooded areas to take advantage of a wide variety of food resources.

Many other species of birds utilize this riparian zone for nesting, foraging, and migration stopover habitat. Heron rookeries occur on island and in cypress sloughs in several locations on Tennessee NWR. The prothonotary warbler (a Partners In Flight priority species within the Central Hardwoods and East Gulf Coastal Plains Bird Conservation Regions) is a relatively common breeding bird within the riparian zone of Kentucky and Barkley Reservoirs. This warbler is limited to bottomland habitats, and nests in cavities that are located over or very close to water.

Extending the duration that riparian zone wetland habitats are inundated during the growing season will dramatically shrink the willow-buttonbush, water tupelo, and bald-cypress plant communities, and alter the plant composition of the bottomland hardwoods. The loss of the woody vegetation that is currently inundated at summer pool is anticipated to negatively impact the productivity of the local wood duck populations and reduce the quantity and quality of wintering waterfowl habitat. It is expected that the woody plant communities in this zone will be replaced by emergent aquatic plants that will not provide good wood duck brood cover or foraging areas for wintering waterfowl. In many cases these emergent aquatic plant communities may be dominated by invasive exotic species such as alligatorweed and *Phragmites*.

Accelerated erosion of the reservoir shoreline and associated damage to refuge archeological sites, boat ramps, roads, dikes, and other facilities

Shoreline erosion is a major problem along Barkley and Kentucky Reservoirs. The results are a loss of riparian and upland habitats and a decrease in water quality. Shoreline stabilization has become a high priority for Tennessee NWR to protect upland habitats, important archeological sites, and stabilize river islands. We are currently partnering with TVA to stabilize several sites on the refuge, and anticipate this project to continue indefinitely. The alternatives need to be examined to determine how they will impact the rate of shoreline erosion. Financial assistance from the Corp will be needed to expand the shoreline stabilization project if summer pool is extended later into the year.

The refuges are nationally known to have a wealth of archaeological sites. The proposal would certainly increase damage and exposure of refuge archeological sites, and probably would result in further looting of graves and artifacts. The increased wave action in July will also exacerbate damage to all refuge facilities exposed to the reservoirs. Increased maintenance and repair of refuge dikes, roads, boat ramps, water control structures, etc. will result.

Appendix 2 - Item 14

Mussel resource

In the rivers downstream of these reservoirs there continues to exist a significant mussel resource, including federally listed species. It is likely that the federally endangered pink mucket, *Lampsilis abrupta*, orangefoot pimpleback, *Plethobasus cooperianus*, ring pink, *Obovaria retusa*, fanshell, *Cyprogenia stegaria*, fat pocket book, *Potamilus capax*, and the candidate species the sheepnose, *Plethobasus cyphyus*, occur downstream of the dams on Barkley Reservoir and/or Kentucky Reservoir. We request that your assessment adequately address impacts to mussels, especially federally listed species, and their associated host fish, due to flow regime changes, temperature, dissolved oxygen, primary productivity and water level alterations, as a result of changes in releases and times of releases due to holding a longer summer pool. Any changes to the current operating regime will necessitate the initiation of consultation with our agency pursuant to sec. 7 of the Endangered Species Act.

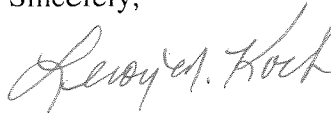
In addition, in Barkley Reservoir and Kentucky Reservoir proper, we request that you assess the impact of the premise that holding water levels higher for extended periods of time could allow enough time for the establishment of mussels further up the bank in shallow water, only to be exposed and die when water levels are lowered.

Summary and Recommendation

Based on our comments included herein we recommend the Corps choose the alternative that restores the original guide curve used prior to 1980 (summer pool drawdown date of June 15). This is our preferred choice and we believe this would especially benefit shorebirds and waterfowl; however, since benchmark data (as mentioned earlier in this letter) is to be collected by TVA and the Corps on both Barkley Reservoir and Kentucky Reservoir, we recommend that this change be delayed for at least 3 to 5 years to allow for this benchmark data to be acquired. Once this is done and the pre-1980 guide curve is implemented, additional data should be gathered for at least 3 to 5 years to document changes. If this information indicates little or no benefit in going to the pre-1980 conditions from the current operation, then the Corp and Service should reevaluate a return to the current existing lake level operation.

Also, we believe an EIS is warranted to be in compliance with NEPA as we mentioned earlier in this letter. Again thank you for the opportunity to provide our concerns on such an important issue. Any questions you have should be addressed to Mr. Leroy Koch of my staff or you may call (502) 695-0468.

Sincerely,



for

Virgil Lee Andrews, Jr.
Field Supervisor

Appendix 2 - Item 14

cc: John Hefner, USFWS
E. J. Williams, USFWS
Lee Barkley, USFWS
John Taylor, USFWS
Gary Myers, TWRA
Jon Gassett, KDFWR
Mike Hardin, KDFWR
Kate Jackson, TVA
Dan Eager, TDEC/WPC
David Morgan, KDOW
Tim Higgs, COE



The Kentucky Ornithological Society

Mark S. Bennett, President
113 Iroquois Circle
Russellville, KY 42276-8887

Appendix 2 - Item 15

270-726-9385

benn5609@bellsouth.net

11 November 2005

Mr. Tim Higgs, Environmental Engineer
Department of the Army
Nashville District, Corps of Engineers
Post Office Box 1070
Nashville, TN 37202-1070

Dear Mr. Higgins:

I am contacting you in regard to a letter addressed to "All Interested Parties" from Steven J Roemhildt. This letter was dated 13 October 2005 and concerned summer pool regulation of the Kentucky Lake/Lake Barkley integrated water system.

This is to inform you that the executive Board of the Kentucky Ornithological Society (KOS) has voted to go "on the record in opposition to the proposed extension of the summer pool for this water system to 15 July and in favor of the maintenance of the status quo". This position was adopted without dissent on 02 November 2005.

The Society views any extension of the summer pool on Lake Barkley as an apparent attempt to circumvent the findings of the Reservoir Operations Study (ROS EIS) that was completed in 2004 for the Tennessee River watershed. Any change in the management of Lake Barkley, which would also affect Kentucky Lake, without an additional Environmental Impact Study would be irresponsible at best and in violation of the National Environmental Policy Act. Additionally, such an action would ignore the lengthy and expensive process that was just completed rendering the TVA EIS a complete waste of taxpayer dollars. Any extension of the summer pool without a new Environmental Impact Study is unacceptable to KOS.

KOS believes that the findings of the original Environment Impact Study are valid and clearly indicate that an extension of summer pool would cause a significant impact to Kentucky's environment and natural resources. The ROS EIS determined that an extension of summer pool would: reduce habitat for migrant shorebirds and waterfowl; increase shoreline and island erosion, including nesting sites for colonial wading birds such as the Kuttawa rookery and areas where the state endangered Double-crested Cormorant nests; increase the likelihood of fish kills, thereby reducing food supplies for sport fish and migratory birds; interfere with benchmark data collected by the ROS EIS; and increase the difficulties of enforcement of the Endangered Species Act. Although the ROS EIS examined the impact of a longer period of summer pool extension than that which is currently being proposed for Lake Barkley, the fact remains that any extension of summer pool will have the above mentioned negative consequences and the effects of such actions must be understood before being implemented.

As president of the KOS, I ask you to include this letter as evidence of opposition to any change in status quo regarding the lake system summer pool without a new EIS. I encourage you to avoid wasting taxpayer's money and understand that a new EIS will most certainly produce the same results as the previous EIS. I thank you for consideration of the Society's position.

Sincerely,

Mark S. Bennett

Appendix 2 - Item 16

KWW

721 Complex Drive
Grand Rivers, KY 42045
Fax: 270-928-4412

Kentucky's Western Waterland

www.kentuckylakebarkley.org
E-mail: waterland@paducah.com
Phone: 270-928-4411

March 14, 2005

Congressman Ed Whitfield
1403 South Main Street
Hopkinsville, KY 42240

Dear Congressman Whitfield:

A group of representatives from various industries affected by tourism met this morning to again discuss the Kentucky/Barkley Lakes levels issue. Copies of our previous correspondence are attached to provide you with a quick background review. Because resolution of this problem is so important to the economic viability of this region, we greatly appreciate your continuing efforts.

The lake levels and schedule that are acceptable are shown in the attached chart and are listed below:

- Elevation to remain at summer pool (359') until August 1
- Elevation to be at 358' on September 1
- Elevation to be at 357' on October 1
- Elevation to be at 356' on November 1

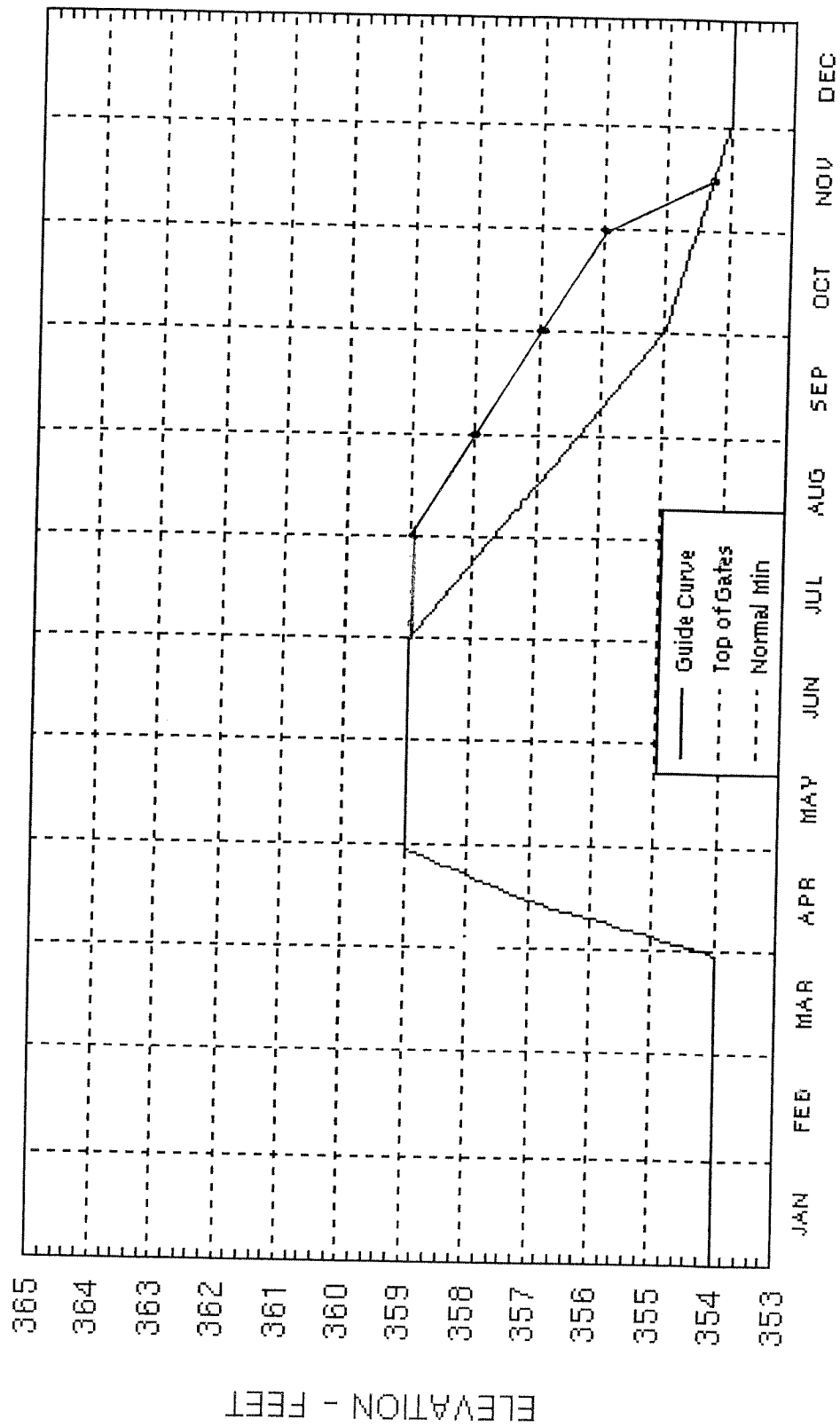
Please continue to pursue this issue on our behalf. We will provide whatever information or support you need. Again, thank you for your assistance.

Sincerely,



Kay McCollum
Executive Director

KENTUCKY RESERVOIR



Proposed Level Changes Shown in Red

Subject: Re: BAR-KY notice

Subject: water elevations

Corps of Engineers:

Appendix 2 - Item 17 (10-31-05)

I am responding to the report I received regarding the proposed change in water elevation on both KY and Barkley Lakes.

Northwest TN Tourism, the organization of which I have been employed for the past 22 years, is a membership organization consisting of several resorts on KY Lake. None of the resorts that we represent have contacted me regarding this issue although any changes in water elevation will effect both Tennessee and KY resorts, wildlife and shoreline habitat.

I have reviewed several documents and reports concerning this issue and want to go on record as opposing any changes in water elevation and drawdown schedules. The reason I am in opposition to any change is the negative effects it could cause to the over-all lake environment for the present and the future compared to the few tourism benefits that two weeks of additional water would generate for the region.

As a side note, I think Rep. Whitefield should understand that KY Lake is 185 miles long with only 45 miles in KY and any changes he proposes effects the entire lake not just KY residents. He needs to straighten out Washington and leave KY and Barkley to those that understand water elevations and the adverse effects of any proposed changes.

Respectfully,

November 10, 2005

REALTOR™

Department of the Army
Nashville District
P.O. Box 1070
Nashville, TN 37202-1071

Appendix 2 - Item 18

RE: Letter of October 13th 2005.

Gentlemen,

I have received a copy of the letter that you sent out on Oct. 13th regarding the lake levels of Kentucky and Barkley Lakes in the state of Kentucky.

You seem to have failed to recognize the dire importance of the reason for keeping the lake levels above the current stages in the summer months in the state of Kentucky.

1. The TVA has arranged for the lake levels in Tennessee to remain above the normal summer pool stages during the summer months in order to assist the tourism development of Tennessee. You did not do this for Kentucky.

In your letter to the public, you indicated the only interest that we people in the Western Kentucky area, are only interested in keeping the lakes at a higher level because of recreational boating, reduced damage to boats and increased revenue to the marinas.

That is absolutely NOT true! In our previous comments to the Corps Of Engineers, we have pointed out consistently, that the lake levels need to be increased in order for us to be competitive with our neighboring state as far as leaving the lake levels above the current levels. It seems to us that if your keeping the levels at a higher elevation in the state of Tennessee and further on up the Tennessee tributaries that it should have the same effect as we would have if you kept the levels up in the state of Kentucky.

The economic opportunities that would be afforded to this area would increase the visitation from the tourist because now we are losing them to our neighbors to the south because of the higher lake levels.

Appendix 2 - Item 18

2. It appears that through the numerous years before the advent of the Corps of Engineers, damming of Lake Barkley, that the fish and wildlife and the migratory birds were able to be accommodated by other waterways and flyways when they did not have the benefits of Lake Barkley and Kentucky Lake. We also recognize that the land values in the immediate vicinity of the lake are diminished substantially when the buying public comes to our region and sees the lack of water in the prime summer months on the two lakes.

We understand that the Corps of Engineers had a private meeting with the Fish and Wildlife Group without advising other interested people to attend this meeting. This appears to be an extreme function of favoritism by the Corps.

Finally, the window of opportunity that you have afforded people to respond is extremely narrow and it should be continued over a number of months in order to give the various factions an opportunity to voice comments.

Respectfully Submitted,

Tim Higgs
U.S. Army Corps of Engineers
P.O. Box 1070
Nashville, TN 37202-5626

11-15-05

Appendix 2 - Item 19

Dear Mr.Higgs:

I have received a copy of the letter sent October 13th regarding the lake levels on Kentucky and Barkley Lakes in the state of Kentucky.

In said letter you mentioned a private meeting with several resource agencies in May of this year. It seems highly unfair that they have been meeting in private on this issue. It could give the public a feeling that collusion is taking place by various public agencies.

Why was not the public invited, & not privy to the minutes of said meeting. I am requesting under the public's right to know who was there, what agencies were represented, and a copy of the minutes.

Most important please assess the following compromise that myself and several individual and business representatives affected by tourism have been meeting for years discussing the Kentucky/Lake Barkley levels issue. We are looking at all ways to address this, because resolution of this problem is so important to the economic viability of this region. What our discussions have brought, and seem to be agreeable with the Kentucky Fish & Wildlife, and TVA is listed below:

- Elevation to remain at summer pool (359') until August 1
- Elevation to be at 358' on September 1
- Elevation to be at 357' on October 1
- Elevation to be at 356' on November 1

Isn't it strange how Tennessee got all of their water levels held, except the waters that flow into Kentucky?

Finally, why is it you always wait until when most tourists, and vacation home owners have left, to requests responses from us. You groupie agencies can meet at anytime. However, greatly due to the effects of you lowering the water too early most of the people had to close up their homes before Labor Day. They are next to impossible to reach. Rather than you giving them the same opportunities to respond as your groupie agencies, you always always always (are you getting a clue yet) always hold meetings in October – March. This is as bias as meeting and colluding with other agencies without public input, or even publishing minutes to interested parties. You sure as heck give them records of all conversation with the public. We deserve and demand the same rights.

Copies of this are going to My Congressman & Senator's office.

Appendix 2 - Item 19

This letter represents my family, and our business.

Your help in this issue is appreciated.

Sincerely,

Mr. Tim Higgs
Environmental Engineer
Department of the Army
Nashville District, Corps of Engineers
P.O. Box 1070
Nashville, Tn. 37202-1070

Appendix 2 - Item 20 (Boater)

Dear Mr. Higgs:

Re: Lake Barkley pool level

I am writing regarding Barkley Lake elevations in September, October and November. What is the advantage of having Barkley at 354 elevation versus 357 during these months? As a boater and adjacent property owner on Lake Barkley, 357 seems the ideal level. The push to extend 359 summer pool is misguided in my opinion. Maybe 358 extended pool but 359 causes too much erosion. I have read a reply from the Project Planning Branch which studied extending summer pool. There is no mention in this reply to extending a higher lake level in September, October and November. I think this would benefit Barkley Lake users the most without harming the shoreline. Of all the concerns listed in the Project Planning Branch report, 357 would not affect any except maybe operational flexibility and interference with benchmark data collection. I have no knowledge of what considerations are involved in lake levels as for navigation and power generation but it seems to me other than the amount of water needed for the higher levels it is just a matter of what enters and what exits which should be the same as now.

The best boating weather occurs in September and October. In my opinion October is the most beautiful month in Kentucky, but with the low lake levels it is dangerous to get out of Kuttawa Harbor Marina. I know the Corps main mission is not recreation but I don't see the advantage of 354 in September, October and November. I would like to see 359 from May 1 to June 15, 358 from June 15 to July 15, 357 from July 15 to November 1. Then from November 1 to December 1 drop from 357 to 354. All changes in level should be through generators if possible. Most of this letter is just my opinions but I really would like my question answered regarding 357 versus 354.

Sincerely:

Appendix 2 - Item 21 (Boater)

Mr. Tim Higgs
Environmental Engineer
Department of the Army
Nashville District, Corps of Engineers
P. O. Box 1070
Nashville, TN 37202-1070

Dear Mr. Higgs:

Re: Lake Barkley pool level

I am writing in response to the proposed pool level change at Lake Barkley. I am a pleasure boater on Barkley Lake and have enjoyed the lake for many years. I fully support the delay of the draw down of the lake from the current date of July 1st to July 15th. However, that doesn't deal with the real problem that is created during the months of September and October when the lake levels now reach dangerous levels for pleasure boaters.

The goals for the lake levels show a major drop each month from July thru September and then a slowing of the drop during October and November. The months of September, October, and even the first part of November are excellent boating months and the state and region would have increased tourism and use of the lake if lake levels were adequate to make boating safe. Fall weather is excellent boating weather and the area could benefit from Fall Color Tours and vacations. As it is now, boaters risk damage to boats and personal injury with lake levels so low in the Fall.

I would ask the Corp to consider a more uniform approach to the reduction of the lake levels from July 15th to December 1st. I would suggest that the lake level target be 357 for September 1st, 356 for October 1st and 355 for November 1st. That would give sufficient depth for most boaters to boat safely and still allow the lake to reach the target level by December 1st.

Sincerely:

Date: 8/22/2005 1:48:18 PM
To: webmail@mcconnell-ic.senate.gov
Subject: www_email

Appendix 2 - Item 22

I am very concerned about the early lowering of water levels of Kentucky and Barkley lakes. We have a houseboat at the NEW Barkley marina and spend every weekend going on trips to other marinas on the lakes. We have spent well over \$10,000.00 this summer playing on the lakes and rivers. At this point, with a good six weeks left to enjoy the lakes, our ability to travel is over because of the water levels. I am an officer with the Grand Lakes Yacht Club which represents over 600 people wanting and willing to spend money using our lakes. We plan our club trips based on summer pool water levels, which were cut short this summer. It would be nice to see summer pool held until the end of August.

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Date: 8/25/2005 7:10:13 AM
To: webmail@mcconnell-ic.senate.gov
Subject: www_email

Appendix 2 - Item 23

Honorable sir-

I am writing you in concern of the TVA summer/ winter pool levels at Lake Barkley. Friends of mine have brought it to my attention that TVA plans to begin lowering to winter pool by mid-August. I would like your support in delaying beginning the winter pool until later in the fall. With much of Aug-Sept and Oct left for enjoyable time on the lake, lowering the level to winter pool will affect safety and local economic benefit. When lowered the lake becomes rather difficult to navigate due to natural hazards, fishing becomes more concentrated and thus poor, and local businesses take a hit from the many that would rather stay home vs. navigate the mess. Please support delaying the winter pool in your discussions with TVA. Thank you for your time.

Date: 8/25/2005 3:58:48 PM
To: webmail@mcconnell-ic.senate.gov
Subject: www_email

Appendix 2 - Item 24

senator.....can you use some of your influence to help rep. whitfield try to get better lake elevations from the corp. of engineers for ky. and barkley lakes. this would be a great benefit for western ky. thank you.

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Appendix 2 - Item 25



August 11, 2005

John P. Woodly
Assistant Secretary Army for Civil Affairs
108 Army Pentagon
Washington, DC 20310-0108

Dear Mr. Woodly,

The economy in Western KY depends, in large part on tourism. Water levels in Kentucky Lake and Lake Barkley are crucial to the prosperity of the area.

Please support Congressman Ed Whitfield in his efforts to resolve the "draw down" issue with the US Army Corps of Engineers. This matter has been ongoing for 25 plus years and a satisfactory answer has never been given for the current policy.

Current policy damages the economy in a very fragile area of the country.

Thank you for your time.

Respectfully

Lt. Col. Steven J. Roemhildt
U.S. Army Corps of Engineers
P.O. Box 1070
Nashville, TN 37202-5626

August 22, 2005

Appendix 2 - Item 26

Dear Lt. Col Roemhildt:

After years discussing the Kentucky/Lake Barkley levels issue with several boaters I became aware of Greg Batts efforts to correct this problem. I refer to this as a problem for the recreational boaters of this great waterway. September and October are two of the best months to boat on this waterway the weather and fall colors are beautiful however the lakes are being drawn down and we have trouble with our large boats due to the draw down.

I understand the draw down is for flood control however unless there has been a very rainy period and the ground is saturated the only real flood problem will occur after the ground is frozen. I can attest to the last eight years I have had a houseboat on Kentucky Lake we have had no threats of flooding in September or October.

As a boater I am asking you to rethink your WINTER DRAW DOWN procedures.

Congressman Whitfield will be meeting in the next few weeks with Secretary John P. Woodley on this issue.

Isn't it strange how Tennessee got all of their water levels held, except the waters that flow into Kentucky?

Your help in this issue is appreciated.

Sincerely:



Kentucky Ornithological Society
Founded 1923

August 17, 2005

Kentucky Ornithological Society
33 Wildwood Drive
Murray, KY 42071

Congressman Ed Whitfield
1402 South Main Street
Hopkinsville, KY 42240

RE: Lake Barkley lake levels

Dear Congressman Whitfield:

We are writing to you to express concern about the proposal to extend summer pool on Lake Barkley. As an organization interested in the health of bird populations and opportunities to watch birds, we are concerned that this proposal will negatively impact migratory shorebirds and wintering waterfowl as well as reduce opportunities for bird watching in Kentucky. We understand that the local business community believes that extending summer pool would increase tourism in the area; however, the environmental cost of this, as of yet unsubstantiated increase in tourism dollars, is too high. In fact, we believe that the proposed change in the drawdown regime of Lake Barkley (and, by default, Kentucky Lake) will impact fish and bird habitat such that tourism will actually decrease in the area because there will be fewer fish to catch or birds to watch.

We believe that the proposed extension will have negative impacts to migrating shorebirds, waterfowl, fish populations, bank stabilization, and flood control capacity.

1. Summer pool has already been extended for both lakes in the early 1980's. Prior to that, the lakes provided key stop-over habitat for shorebirds during the peak of adult migration. The current draw-down schedule provides habitat during the peak

juvenile migration. An extension of summer pool will mean that juvenile shorebirds will find very limited resting and feeding habitat in Kentucky. Because juvenile birds tend to be more vulnerable to starvation and predation, it is important that Kentucky continue to provide habitat for these birds. Not only will the health of these birds be affected under the proposed extension, but the opportunities we currently enjoy to view these exceptional birds will be eliminated.

2. Mudflats that are exposed during the current late summer draw-down become vegetated and provided food resources for waterfowl. By extending summer pool, the mudflats will not be exposed long enough to allow vegetation to germinate, mature, and seed (which provides the most important resource for waterfowl). Therefore, an extension of summer pool will negatively affect waterfowl survivorship as well as hunting and bird watching opportunities of this economically valuable group of birds.
3. Popular sport fish that reproduce in Lake Barkley require structure (shrubs and tree roots) to spawn. To extend summer pool (thereby keeping the vegetation under water longer) will push the vegetation into a period of inundation from which it can not survive. This will not only eliminate spawning habitat for fish, but will also lead to reduced bank stabilization and increased erosion.
4. The top priority for management of any man-made reservoir is flood control. By extending summer pool, water storage capability of Lake Barkley, Lake Cumberland, and Kentucky Lake will be greatly reduced. The economic consequences of a massive flooding event are insurmountable. In order to fully understand the financial trade-offs of increased tourism dollars in exchange for reduced flood control, proponents of the extension should present financial estimates of how much more money tourism will bring to the area vs. how much money will be lost in the event of a flood.
5. Extending summer pool on Lake Barkley will, by default, extend summer pool on Kentucky Lake; essentially doubling the negative impacts. In addition the Tennessee Valley Authority (TVA), which is the federal agency that manages the adjacent and connected Kentucky Lake, just completed an extensive Environmental Impact Statement (EIS) last year of this very same issue: extending summer pool. The TVA concluded that an extension of summer pool on Kentucky Lake would have negative environmental consequences and found it inappropriate to extend summer pool on Kentucky Lake. Because the National Environmental Protection Act requires that an EIS be prepared for any action taken by a federal agency that can impact the environment, the Army Corps of Engineers will have to prepare yet another multi-million dollar EIS. We do not see the need to spend millions more dollars replicating this study.

We are asking that you withdraw your support of the proposal to extend summer pool on Lake Barkley. We believe that extending summer pool will actually be counter productive to the goals of the local business people seeking to increase tourism in the area. We recommend that this group focus on celebrating the abundant fish and wildlife resources that Lake Barkley currently has to offer.

Extending summer pool will reduce available habitat for shorebirds and waterfowl and will negatively affect fish habitat. Tourists come to this area because they are attracted to the beauty of Lake Barkley and the excitement of enjoying wildlife resources. Further extension of summer pool will only serve to destroy the natural resources that attract tourists to begin with; and will decrease the quality of life for Kentucky residents who enjoy fishing, bird watching, and waterfowl hunting on Lake Barkley.

We thank you for your consideration of this matter.

Best regards,

Hap Chambers, President
Kentucky Ornithological Society

Appendix 2 - Item 28

CELRN-PM-P

03 November 2005
Revised 19 December 2005

Memorandum for File

Subject: Phone responses to Lake Barkley – Kentucky Lake Summer Pool Extension
Scoping Notice (dated October 13, 2005)

1. November 3, 2005: Mr. CB is **opposed** to the pool extension due to the environmental (habitat) impacts associated with it. He sees few benefits to justify any extension since it benefits only marinas and some boaters. He is a member of the Kentucky Ornithological Society.
2. November 3, 2005: Mr. CT, Patty's 1880's Settlement and Real Estate agent. He is **for** pool extensions for two reasons. One is that lakeshore property values are affected by dry docks as the lake is lowered. He feels that extending the pool would increase property values and generate additional taxes for the local governments. If pool extensions are not approved, he thinks docks owners in shallow areas should be allowed to extend their docks to get year-round use. The second reason is that many tourists are unfamiliar with the lakes and rent boats/houseboats that are damaged when they strike mudflats. Their recreational experience is degraded and they may not return to the lakes (less tourism dollars).
3. December 2, 2005: David McKinney, TWRA left a voicemail to supplement the letter from TWRA dated 5-11-05. He recently attended a FERC workshop and feels we need to consider increased bioavailability of toxins, particularly mercury and organics/PCBs, due to increased residence time in a reservoir if pools are extended.

Tim Higgs
Environmental Engineer
Project Planning Branch

CELRN-PM-P

20 December 2005
Revised 14 April 2006

MEMORANDUM FOR RECORD

SUBJECT: Lake Barkley and Kentucky Lake Summer Pool Extension, Summary of comments received during and prior to the scoping notice

1. A scoping notice dated October 13, 2005 was circulated to local and regional media and known interested parties, using mailing lists from the TVA ROS EIS and Lake Barkley Resource Management Office. The notice requested comments by November 18, 2005 to ensure inclusion in the Environmental Assessment (EA). A total of thirteen letters, emails, or phoned responses were received in response to the scoping notice. In addition, four agency letters were provided in response to the April 3rd agency meeting. Several additional individual letters were forwarded to the Corps by local politicians on the lake levels issue prior to simultaneous to the scoping notice. Electronic copies of the letters are included in the following file: Q:/Projects/Lake Barkley Lake Level/scoping responses1.pdf. Names and addresses of individuals have been blocked out for inclusion in the EA.

2. Comments received during scoping period:

a. USFWS, Tennessee National Wildlife Complex: Submitted a letter dated 11-15-05 that referred to their earlier letter of 5-9-05 and reiterated their position has not changed. They recommend an EIS be done due to cumulative impacts of past pool changes which adversely affected about 1500 acres of Tennessee Refuge land. Any pool extension now would interfere with the five-year baseline data collection effort by TVA on Kentucky Lake. Any trial prior to completion of the baseline data collection would be difficult to assess. Delaying the drawdown would adversely impact the habitat for shorebirds, waterfowl, wetlands, refuge facilities, refuge operation, and archeological sites within the two NWRs (for details see the actual letter). They strongly recommended no change to operation of the lakes. If a three year trial operation is conducted, they believe an EIS is warranted and this trial should be delayed until after adequate baseline data is collected.

b. USFWS, Kentucky Field Office: Submitted a letter dated 11-15-05 which repeated the concerns voiced by the Tennessee National Wildlife Complex and added additional concerns for mussels and requested clarification on what was meant by a "trial operation". They expressed concerns that the current proposal would not satisfy proponents of the summer pool extension and that additional future extensions would be pursued. They request that the assessment include impacts to mussels below Barkley and Kentucky Dams, including federally listed species. Assessment should include possible changes to flow, water quality, and fish species. Any change to the current operation will necessitate the initiation of consultation with the USFWS pursuant to Section 7 of the Endangered Species Act. Additionally, mussel impacts within the pools should be assessed, including stranding of mussels from a delayed drawdown. They recommend

Appendix 2 - Item 29

the Corps choose the alternative that restores the original guide curve (June 15 drawdown) due to the benefits to shorebirds and waterfowl, but that any change is delayed at least 3-5 years to allow baseline data collection. After going back to the original guide curve, conditions should be reassessed after another 3-5 years of operation then an informed decision could be made on returning to the July 1 drawdown.

c. U.S. Army Corps of Engineers, Mississippi Valley Division: Submitted separate letters dated 11-21-05 to both the Nashville District and TVA. In both letters they stated an interest in any changes within the Barkley/Kentucky Lakes that may affect downstream flood control, navigation or the environment of the Mississippi River. They referenced the evaluation performed for the TVA ROS EIS which recommended no change in BAR/KY. They committed to working closely with LRN and LRD staff in analyzing impacts of alternatives on the downstream river system. MVD's position remains that any change that would reduce flood control capability at Kentucky/Barkley Lakes or impacts mainstream river navigation must be evaluated within the context of the entire lower Ohio/Mississippi River system.

d. Kentucky Ornithological Society: Their president submitted a letter dated 11-11-05 stating their board voted without dissent "to oppose any proposed extension of the summer pool to July 15 and in favor of status quo." They view any summer pool extension of Lake Barkley as an attempt to circumvent the TVA ROS EIS findings. They believe the findings of the original EIS as valid and indicate an extension of summer pool would cause a significant impact to Kentucky's environment and natural resources. They listed the reasons from the ROS EIS why summer pool extensions are detrimental and that any extension would have the same affects. They oppose any change without a new EIS and encourage the Corps to avoid wasting taxpayer's money on a new EIS that will most certainly produce the same results as the previous EIS.

e. Individual, Realtor (Cadiz, KY), submitted a letter dated 11-10-05 supporting an extension of summer pool in order to be competitive with neighboring states whose lakes were raised during the recent TVA ROS. He feels the reasoning for holding other TVA lakes higher would apply to Kentucky and Barkley Lakes also. Economic benefits would be increased tourism with the longer summer pool. Fish and wildlife and migratory birds were able to accommodate by other waterways and flyways prior to damming of Lake Barkley. Land values in the immediate vicinity of the lake are diminished by the lack of water in the prime summer months. He questioned a private meeting with Fish and Wildlife Group without advising other interested people to attend the meeting. He asked that the window of opportunity to comment be extended over a number of months to allow various factions an opportunity to voice comments.

f. USDA, Forest Service, Land Between The Lakes: submitted a letter dated 11-17-05 stating they cannot provide any recommendations concerning the pool extension alternatives at this time. They recognized that some recreational aspects may benefit from a pool extension (lake front campsites, boat ramps, and possible water-related special events). They recognized potential negative effects of pool extensions such as degraded shoreline vegetation and fisheries, mudflat exposure and habitat during

Appendix 2 - Item 29

shorebird migration, and impacts to birds of prey such as bald eagles and osprey. They also provided two documents that might contain information that could aid the current evaluation (*The Relative Abundance of Cephalanthus occidentalis On Kentucky and Barkley Lakes Land Between The Lakes* (1979) and *Seed Germination Ecology Of Summer Annual Species Of Dewatered Reservoir Shorelines (Mudflats)*, *A Temporally Unpredictable Habitat* by Baskins, Baskins, and Chester (2002).

g. Individual, Owner, Prizer Point Marina & Resort LLC (Cadiz, KY): submitted a letter by email on 11-15-05. He questioned holding a private meeting with resource agencies and the appearance of collusion between various public agencies. He requested a copy of the minutes and attendees list from the agency meeting (Corps provided by letter dated 12-05-05). He asked that a compromise pool operation be considered that was developed by individuals and businesses affected by tourism. He stated this pool operation seems to be agreeable to KY Fish and Wildlife and TVA. Specific pool elevations listed are: 359' on August 1, 358' on September 1, 357' on October 1, and 356' on November 1. He questioned why lake levels were raised in Tennessee, except for those flowing into Kentucky. He questioned the timing of the scoping notice since it is after the season when most tourists are present since they leave when lake levels are lowered.

h. Individual, Northwest Tennessee Tourism (Paris, TN) submitted a letter by email on 10-31-05. He is opposed to any changes in water elevation and drawdown schedules due to the negative effects to the over-all lake environment for the present and future compared to the few tourism benefits that two weeks of additional water would generate for the region. He stressed that KY Lake is primarily in Tennessee and any changes effects the entire lake not just Kentucky. His organization represents several resorts on KY Lake and none of them have contacted him regarding this issue.

i. Individual, Kuttawa, KY: submitted an undated letter (received prior to 11-18-05) supporting a compromised pool extension to improve pleasure boating conditions. He feels holding an elevation of 359' would worsen bank erosion but holding the lakes at 357' may be ideal. He wants this considered for later into the fall season and feels this would not impact any of the concerns listed in the scoping notice except baseline data and operational flexibility. He recognizes the concerns for navigation and power generation but feels the compromised pools would not affect them. He lists a compromised pool operation as follows: 359' May to June 15, 358' June 15 to July 15, 357 from July 15 to November 1, 354 on December 1.

j. Individual, Smithton, IL: He submitted an undated letter (received prior to 11-18-05) that supports a pool extension to July 15th and stated that the real problem is during September and October. He feels that pleasure boating conditions and lake tourism (Fall Color Tours) would benefit from raised pool though the fall months and proposed the following operation: 357' to September 1, 356' to October 1, 355' to November 1 and 354' on December 1.

Appendix 2 - Item 29

k. Tennessee Department of Conservation, Environmental Policy Office: submitted a letter on October 28, 2005 recognizing receiving the scoping request and they would comment as appropriate. No subsequent comments were provided.

l. Individual provided comments by phone on 11-3-05 that he is opposed to the pool extension due to the environmental (habitat) impacts associated with it. He sees few benefits to justify any extension since it benefits only marinas and some boaters. He is a member of the Kentucky Ornithological Society.

m. Individual, Patty's 1880's Settlement and Real Estate agent provided comments by phone on 11-3-05. He is for pool extensions for two reasons. One is that lakeshore property values are affected by dry docks as the lake is lowered. He feels that extending the pool would increase property values and generate additional taxes for the local governments. If pool extensions are not approved, he thinks docks owners in shallow areas should be allowed to extend their docks to get year-round use. The second reason is that many tourists are unfamiliar with the lakes and rent boats/houseboats that are damaged when they strike mudflats. Their recreational experience is degraded and they may not return to the lakes (less tourism dollars).

n. David McKinney, TWRA left a voicemail on 12-2-05 to supplement the letter from TWRA dated 5-11-05. He recently attended a FERC workshop and feels we need to consider increased bioavailability of toxins, particularly mercury and organics/PCBs, due to increased residence time in a reservoir if pools are extended.

3. Several letters were dated before the scoping period and forwarded from other politicians. The comments from individuals and the Kentucky's Western Waterland group were in favor of summer pool extensions of greater duration than currently proposed. A response from the KOS to Congressman Whitfield's Office was in opposition of any pool extensions.

4. Comments provided in response to the agency meeting of April 3, 2005: letters from USFWS – Tennessee Field Office, USFWS – Tennessee National Wildlife Complex, TWRA, and KDFWR. The KDFWR provided a follow-up letter on March 3, 2006. Other agency responses came from the USFWS- Kentucky Field Office and The Corps of Engineers- Mississippi Valley Division Office

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